1. (Once Amended) An etching agent for copper comprising an aqueous solution containing potassium hydrogen peroxomonosulfate, a concentration of said potassium hydrogen peroxomonosulfate falling within a range of about 0.08 mol/L to about 2.0 mol/L.

REMARKS

Restriction/Election

All claims of the application stand subject to a restriction requirement under 35 U.S.C. §121. Claims 1 and 2 stand provisionally elected as drawn to an etching agent for etching copper. Applicants respectfully reaffirm this election with traverse. In the Office Action, the Examiner required election between species I: Claims 1-3, species II: Claims 4 and 7 – 12, species III: Claim 5 and species IV: Claim 6. The Examiner further stated that no generic claims were present. Applicants have cancelled Claims 13-16.

Rejection of Claim 1 under Condra under §102(b)

In the Office Action, claim 1 stands rejected under 35 U.S.C. §102(b) as being anticipated by Condra *et al.* Applicant has amended claim 1, and submits that claim 1 is patentable over Condra. Amended claim 1 recites the use of potassium hydrogen peroxomonosulfate at a concentration of about 0.08 mol/L to about 2.0 mol/L. One advantage of using this concentration is that the speed of the etching process may be adequately controlled. If there is too much potassium hydrogen peroxomonosulfate in the etching reagent, the etch will proceed too quickly.

However, Condra does not anticipate or disclose specific values of the concentration of oxidizing agents as used in the process of the reference. Condra discloses a method for microetching, the general cleaning of a metallic surface before manufacturing operations. Microetching calls for the "removal of a thin layer of metal from the surface being cleaned." (Condra, col. 1, ll. 11 – 17.) In such an application, it is less important to control the speed and precision of the etching process – microetching only requires that a layer be removed from the whole surface. Removal of this layer need not be precisely controlled to a portion of a layer. Thus, Condra does

not anticipate or disclose the arrangement recited in amended Claim 1. Thus, Applicant submits that amended Claim 1 overcomes the §102(b) rejection.

Rejection of claims 1 and 2 under Kubotera under §103(a)

In the Office Action, claims 1 and 2 stand rejected under 35 U.S.C. §103(a) as being anticipated by Condra *et al* and Kubotera *et al*. Applicant has amended independent claim 1, and submits that claims 1 and 2 are patentable over Condra and Kubotera.

As above, Condra is directed to a process for regeneration of cleaning compounds in microetching a metal substrate, or the general cleaning of a metallic surface before manufacturing operations by removal of a thin layer of metal from the surface being cleaned. Kubotera, on the other hand, is directed to a process for producing a multilayer printing plate. Specifically, Kubotera produces the printing plate by etching portions of the plate. The two arts are significantly different: Kubotera teaches etching a predetermined pattern into a plate for use in printing, while Condra is directed towards a metal cleaning process. Condra is directed towards a process in which a thin layer of material is completely removed, while Kubotera is directed towards a process of controlled removal of a portion of a layer. Furthermore, the searches in the two references are categorized into completely different art classes. No motivation is present in either reference to compine the microetching process of Condra with the process for creating a printing plate of Kubotera.

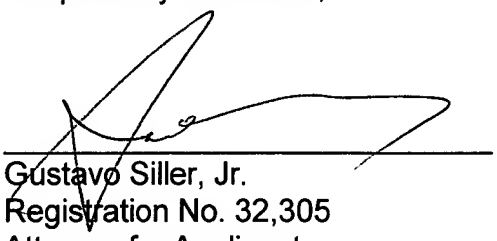
Thus, neither Kubotera nor Condra, alone or in combination, anticipate or suggest the arrangement of amended Claims 1 and 2. Applicant submits that amended Claims 1 and 2 overcome the §103(a) rejection.

CONCLUSION

For the foregoing reasons, all of the rejections set forth by the Examiner have been overcome. Applicants therefore believe that the application is therefore in condition for allowance. Favorable reconsideration of the application is respectfully requested.

The Examiner is invited to contact the undersigned at (312) 321-4200 with any queries, comments, or suggestions as to how to best expedite the above referenced application to allowance.

Respectfully submitted,



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APPENDIX
Etching Reag nt and M thod for Manufacturing El ctronic Device Substrat and Electronic D vic
Serial No. 09/595,415
Seki *et al.*

1. (Once Amended) An etching agent for copper comprising an aqueous solution containing potassium hydrogen peroxomonosulfate~~.~~, a concentration of said potassium hydrogen peroxomonosulfate falling within a range of about 0.08 mol/L to about 2.0 mol/L.